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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,217	09/09/2003	Denis O'Keeffe	09623C-041710US	5719

20350 7590 11/22/2006

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EXAMINER

SHERMAN, STEPHEN G

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 11/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/659,217

Applicant(s)

O'KEEFFE ET AL.

Examiner

Stephen G. Sherman

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on the 20 October 2006 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 11-17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claim 11 is objected to because of the following informalities:

The claim recites in the 5th line of the claim: "configured receive into the alignment groove and..." The examiner suggest changing the claim to read: "configured to receive into the alignment groove and...". Appropriate correction is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su (US 2003/0001819) in view of Yin (US 2002/0167482).

Regarding claim 11, Su discloses an input device comprising:

a housing (Figure 1, item 100) having:

a bottom case (Figure 1, item 10 and paragraph [0010]) ;

a top case connected to the bottom case (Figure 1, there is a top case located between the bottom case 10 and the upper section 20.),

the top case including a left side grip and a right side grip being formed on a single piece component (Figure 1, there is a side grip on both sides located between the bottom case 10 and the upper section 20 which are formed on the single piece component.),

the left side grip and the right side grip being configured to be held by a user's thumb on one side and by at least one of the user's ring finger and little finger on another side (Figure 1, the grips on both sides would be held by the user's ring finger and little finger as is done on any conventional mouse.);

and an upper member connected to the top case and including a palm rest configured to support the user's palm (Figure 1 and paragraph [0010]. Item 20 is an upper member which includes a palm rest to support a user's palm.).

Su fails to teach wherein a bottom case having a bottom surface with an alignment groove formed in the bottom surface and extending below the bottom surface, wherein the alignment groove is configured receive into the alignment groove an alignment protrusion that extends from a surface of a charging base configured to receive the input device for charging the input device.

Yin discloses of an input device comprising of a housing a bottom case having a bottom surface with an alignment groove formed in the bottom surface and extending below the bottom surface (Figure 8 shows that the input device 200 has a bottom

surface in which alignment grooves 250 and 252 are provided which extend below the bottom surface.), wherein the alignment groove is configured receive into the alignment groove an alignment protrusion that extends from a surface of a charging base configured to receive the input device for charging the input device (Figure 8 shows that alignment protrusions 150/152 are received by the alignment grooves 250 while protrusion 160 is received by alignment groove 252 as explained in paragraphs [0035]-[0036], while paragraph [0040] explains that the mouse device has a rechargeable battery, while the portable computer, i.e. charging base, has a charging power supply and connectors that mate with corresponding connectors of the mouse in order to recharge the mouse when it is mounted on the portable computer.).

Therefore it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to provide the mouse taught by Su with a means for recharging as taught by Yin in order to allow for the mouse to be easily recharged when the device is not in use.

Regarding claim 12, Su and Yin disclose the input device of claim 11.

Su also discloses wherein the single piece component includes a front connected between the left side grip and the right side grip (In Figure 1, there is a front section connected between the left and right grip between push sections 24 and base 10 on the single piece component.).

Regarding claim 13, Su and Yin disclose the input device of claim 11.

Su also discloses wherein at least one of the left side grip and the right side grip has a concave surface (Figure 1, it can be seen from the curve in the structure that the section of the grip is formed as a concave surface.).

Regarding claim 14, Su and Yin disclose the input device of claim 11.

Su also discloses wherein a portion of the single piece component has a hollow interior (Figure 2. The examiner interprets that since the connections and the switches are located inside of the housing that at least a portion of the single piece component would be hollow.).

Regarding claim 15, Su and Yin disclose the input device of claim 14.

Su and Yin fail to teach wherein the single piece component having the hollow interior is formed by gas assisted injection molding.

However, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to form the single piece component using gas assisted injection molding since it is well known that gas assisted injection molding results in material savings including reduction of cost and reduction of time, it also results in the quality improvement by removal of sink marks, reducing internal stresses and allows for greater freedom in the design of parts.

7. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Su (US 2003/0001819) in view of Yin (US 2002/0167482) and further in view of Wu (US 2002/0135562).

Regarding claim 16, Su and Yin disclose the input device of claim 11.

Su and Yin fail to teach wherein the single piece component has a thick portion which is thicker than a thin portion, and wherein the thin portion comprises a first material and wherein the thick portion comprises the first material and a second material.

Wu discloses an input device wherein the single piece component has a thick portion which is thicker than a thin portion (Figure 5B, section 52 is thicker than a section 54.), and wherein the thin portion comprises a first material (Figure 5B the thin portion 54 can be seen to comprise a first material.) and wherein the thick portion comprises the first material and a second material (Figure 5B the thick portion 52 can be seen to comprise a first and second material.).

Therefore it would have been obvious to “one of ordinary skill” in the art at the time the invention was made to use the recess portion as taught by Wu to replace the coupling post 22 taught by the combination of Su and Yin in order to allow for the depression of the key plates and to simplify the manufacturing process and to allow for the assembling process of the housing to be omitted to accordingly reduce costs.

Regarding claim 17, Su, Yin and Wu disclose the input device of claim 16.

Su, Yin and Wu fail to teach of an input device wherein the single piece component having the thick portion and the thin portion is formed by dual material injection molding.

However, it would have been obvious to "one of ordinary skill" in the art at the time the invention was made to form the single piece component by using dual material injection molding since it is well known that dual material injection molding has high production rates and results in a minimum loss of materials.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lu (US 2003/0160762) discloses of a rechargeable wireless mouse which has a groove for receiving a recharging means in order to allow for the wireless mouse to be charged.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen G. Sherman whose telephone number is (571) 272-2941. The examiner can normally be reached on M-F, 8:00 a.m. - 4:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SS

14 November 2006

AMR A. AWAD
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", written over the printed name and title.